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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09-828,293	04-06-2001	James D. Caldwell JR.	71886	6595

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EXAMINER

HECKENBERG JR, DONALD H

ART UNIT

PAPER NUMBER

1722

8

DATE MAILED: 09/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-8

<b>Office Action Summary</b>	<b>Application No.</b> 09/828,293	<b>Applicant(s)</b> CALDWELL, JAMES D.	
	<b>Examiner</b> Donald Heckenberg	<b>Art Unit</b> 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 15 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

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1. Applicant's election with traverse of Group II in Paper No. 7 is acknowledged. The traversal is on the ground(s) that claim 1 of the instant application specifies the intended use of the apparatus is to receive a preform impregnated with resin, and therefore the distinction between the two groups set forth in the previous Office Action is not proper. This is not found persuasive because as noted in the last Office Action, the intended use of a claimed apparatus is not germane to the issue of patentability. Therefore, despite the reciting of a preform in the apparatus claims, this feature does not figure into the issue of patentability of the apparatus, and thus a different search and consideration is required for the apparatus claims (Group I) than the method claims (Group II). Note that the preform does figure into the issue of patentability of the method, and is recited in relation to various method steps, such as placement in the female mold prior to the closing of the male mold. This step is not recited in the apparatus, and therefore shows further distinctness between the two groups.

The requirement is still deemed proper and is therefore made FINAL.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following

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reference signs mentioned in the description: "60" (recited at p. 12, ln. 24); "53" (recited at p. 13, ln. 6); "74" (recited at p. 14, lns. 13-14). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The disclosure is objected to because of the following informalities:

P. 13, ln. 24, should read the --male mold element 40-- , rather than "male mold element 45".

Appropriate correction is required.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for

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establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wejrock et al. (US Pat. No. 5,256,366) in view of Krauter (US Pat. No. 4,759,893).

Wejrock teaches a method of manufacturing an article comprising the steps of:

providing an outer female mold element (4) having an interior space associated with a first surface of the article;

providing an inner male mold element (2) having an exterior surface associated with a second surface of the article, and being sized to be placed within an interior region of the female mold element so as to define a mold assembly forming a mold cavity (10) between the interior surface of the female mold element and the exterior surface of the male mold element (see figs. 4 and 10), the male mold element having a perimeter sidewall that is adapted to extend a vertical distance alongside, but spaced apart from, a mutually facing interior

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sidewall of the female mold element when the male mold element is inserted into the female mold element (see figs. 4 and 9);

placing the structural preform on a member of the mold assembly (col. 5, ln. 66 - col. 5, ln. 2);

introducing resin into the interior region of the female mold element (col. 5, lns. 3-4);

inserting the male mold element within the interior region of the female mold element so as to form therewith a mold cavity of the mold assembly, and also a generally continuous narrow annular channel that is contiguous with the mold cavity, through which air is vented and into which resin introduced into the cavity is allowed to expand from the mold cavity (see figs. 4, 9; and col. 5, lns. 15-58);

and after curing of the resin, removing the mold assembly to provide the resin transfer molded article (col. 5, lns. 59-61).

Wejrock further teaches the male mold element and the female mold element to be located by means of a plurality of indexing tabs (50, 52) that engage the male mold element and the female mold element (see col. 5, lns. 15-19).

Wejrock also teaches coupling the male mold element and the female mold element with an auxiliary closure which applies a vacuum (see col. 5, lns. 26-40).

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Wejrock fails to teach the placement of the preform within the interior region of the female mold element, instead teaching the placement of the preform on the male mold element (col. 4, ln. 66 - col. 5, ln. 2).

Krauter teaches a resin transfer molding process using male (7) and female (1) mold elements, wherein the preform and the resin material is placed in the female mold element prior to the male mold member being inserted in the female mold member (see figs. 3-4, and col. 4, lns. 1-7) for the purpose of achieving a uniform flow of the resin material through the fibrous preform (see col. 1, lns. 61-66).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the method of Wejrock as such to have placed the preform in the female mold element rather than the male mold element because this alternative process would aid in achieving uniform flow of resin through the preform as suggested by Krauter.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wejrock modified by Krauter as applied to claims 5 and 7-9 above, and further in view of Herbert, Jr. (US Pat. No. 5,087,193).

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Wejrock and Krauter teach the article manufacturing process as described above. Wejrock and Krauter fail to teach the process to include a step of removing a band of cured resin formed along an edge of the molded article.

Herbert teaches a resin transfer molding process wherein undesired flash portions of the molded article are removed subsequent the molding steps for the propose of obtaining the shape of the article desired (see col. 8, lns. 15-25).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the process of Wejrock and Krauter to further comprise a step of removing unwanted flash portions of the molded article because this would have allowed the molded article to be shaped as desired for the final product as suggested by Herbert.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (703) 308-6371. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

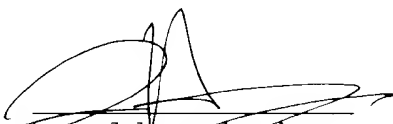
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jan Silbaugh, can be reached at (703) 308-3829. The official fax phone number for

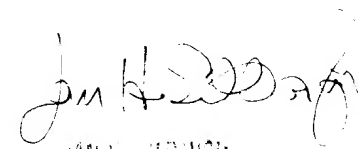


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the organization where this application or proceeding is assigned is (703) 872-9310 for responses to non-final action, and 703-872-9311 for responses to final actions. The unofficial fax phone number is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Donald Heckenberg  
September 10, 2002

  
J. H. 2002  
SUPERVISOR  
ART UNIT 1722  
ca/12/02